

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/809,312
Source: IFWO
Date Processed by STIC: 1/21/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: <u>10/809,312</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 _____ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n/Xaa	"n" can only represent a single <u>nucleotide</u> ; "Xaa" can only represent a single <u>amino acid</u>	



IFWO

RAW SEQUENCE LISTING

DATE: 01/21/2005

PATENT APPLICATION: US/10/809,312

TIME: 12:37:59

Input Set : A:\5199-69.ST25.txt

Output Set: N:\CRF4\01212005\J809312.raw

3 <110> APPLICANT: Columbia University
 4 Greene, Lloyd A.
 5 Angelastro, James M.
 7 <120> TITLE OF INVENTION: Methods for Regulating Differentiation of Neural Cells and
 Uses
 8 Thereof
 10 <130> FILE REFERENCE: 5199-69
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/809,312
 C--> 14 <141> CURRENT FILING DATE: 2002-03-24
 16 <150> PRIOR APPLICATION NUMBER: 60/460,242
 18 <151> PRIOR FILING DATE: 2003-04-04
 20 <160> NUMBER OF SEQ ID NOS: 20
 22 <170> SOFTWARE: PatentIn version 3.2
 24 <210> SEQ ID NO: 1
 26 <211> LENGTH: 1034
 28 <212> TYPE: DNA
 30 <213> ORGANISM: Human
 32 <400> SEQUENCE: 1
 34 gcacctgtgc ctcagccatg tcaactcctgg cgacctctggg actggagctg gacagggccc 60
 36 tgctcccagc tagcgggctg ggctggctcg tagactatgg gaaactcccc ctggcccctg 120
 38 cccccctggg cccctatgag gtccctgggg gtgccctgga gggcgggctt ccaggggggg 180
 40 gagagcccct ggcaggtgac ggcttctctg attggatgac cgagcgggtg gacttcacag 240
 42 cctccttcc tctggaggcc cctctgcccc caggcactct cccccaccc tccccctgcc 300
 44 cccctgacct ggaagccatg gcatccctac tcaagaagga gctagaacag atggaagact 360
 46 tcttccctga tgccccatc cttccaccgc cttccccacc tccaccccca cccccagcac 420
 48 cctctctgcc cctgcccctta cccttgccca cctttgatct cccgcagcct cctaccctgg 480
 50 ataccctgga cttgctagct gtttactgcc gcagtgaggc tgggccaggg gattcaggct 540
 52 tgacaacctt gcctgtcccc cagcagcctc ctcctctggc ccctctgctt tcacctccc 600
 54 gaccagcccc ctatcctagt cctgccagca cccgagggga ccgcaagcaa aagaagagag 660
 56 accagaataa gtcagctgct ctcaggtacc gccagaggaa gcgggcagag ggcgaggccc 720
 58 tggagggcga gtgccaaggg ctagaggcgc ggaatcgga gctgaggag agggcagagt 780
 60 cagtgaacg ggagatccag tatgtgaagg atctgcta attgaggtgtat aaggcacgaa 840
 62 gccagaggac ccgcagtgcc tagggtagag gaggaggcag ttctgggtgta cctgtgcctc 900
 64 cagcttcacc ctgtccctcc atttcacttc cctgtgcata cgtgtctagg tctcccctct 960
 66 gcctatcccc attatgggtt atttggcata gtcagtttct gtacccttc agtgcaactg 1020
 68 agaaccaagc tcga 1034
 71 <210> SEQ ID NO: 2
 73 <211> LENGTH: 281
 75 <212> TYPE: PRT
 77 <213> ORGANISM: Human
 79 <400> SEQUENCE: 2
 81 Met Ser Leu Leu Ala Thr Leu Gly Leu Glu Leu Asp Arg Ala Leu Leu
 82 1 5 10 15
 85 Pro Ala Ser Gly Leu Gly Trp Leu Val Asp Tyr Gly Lys Leu Pro Leu

PS
 Does Not Comply
 Corrected Diskette Needed

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Input Set : A:\5199-69.ST25.txt

Output Set: N:\CRF4\01212005\J809312.raw

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86          20          25          30
89 Ala Pro Ala Pro Leu Gly Pro Tyr Glu Val Leu Gly Gly Ala Leu Glu
90          35          40          45
93 Gly Gly Leu Pro Gly Gly Gly Glu Pro Leu Ala Gly Asp Gly Phe Ser
94          50          55          60
97 Asp Trp Met Thr Glu Arg Val Asp Phe Thr Ala Leu Leu Pro Leu Glu
98 65          70          75          80
101 Ala Pro Leu Pro Pro Gly Thr Leu Pro Pro Pro Ser Pro Ala Pro Pro
102          85          90          95
105 Asp Leu Glu Ala Met Ala Ser Leu Leu Lys Lys Glu Leu Glu Gln Met
106          100          105          110
109 Glu Asp Phe Phe Leu Asp Ala Pro Leu Leu Pro Pro Pro Ser Pro Pro
110          115          120          125
113 Pro Pro Pro Pro Pro Ala Pro Ser Leu Pro Leu Pro Leu Pro Leu Pro
114          130          135          140
117 Thr Phe Asp Leu Pro Gln Pro Pro Thr Leu Asp Thr Leu Asp Leu Leu
118 145          150          155          160
121 Ala Val Tyr Cys Arg Ser Glu Ala Gly Pro Gly Asp Ser Gly Leu Thr
122          165          170          175
125 Thr Leu Pro Val Pro Gln Gln Pro Pro Pro Leu Ala Pro Leu Pro Ser
126          180          185          190
129 Pro Ser Arg Pro Ala Pro Tyr Pro Ser Pro Ala Ser Thr Arg Gly Asp
130          195          200          205
133 Arg Lys Gln Lys Lys Arg Asp Gln Asn Lys Ser Ala Ala Leu Arg Tyr
134          210          215          220
137 Arg Gln Arg Lys Arg Ala Glu Gly Glu Ala Leu Glu Gly Glu Cys Gln
138 225          230          235          240
141 Gly Leu Glu Ala Arg Asn Arg Glu Leu Arg Glu Arg Ala Glu Ser Val
142          245          250          255
145 Glu Arg Glu Ile Gln Tyr Val Lys Asp Leu Leu Ile Glu Val Tyr Lys
146          260          265          270
149 Ala Arg Ser Gln Arg Thr Arg Ser Ala
150          275          280
153 <210> SEQ ID NO: 3
155 <211> LENGTH: 15
157 <212> TYPE: DNA
159 <213> ORGANISM: rat
161 <400> SEQUENCE: 3
163 catgagaacc tagtc
166 <210> SEQ ID NO: 4
168 <211> LENGTH: 19
170 <212> TYPE: DNA
172 <213> ORGANISM: artificial sequence
174 <220> FEATURE:
176 <223> OTHER INFORMATION: primer
178 <400> SEQUENCE: 4
180 cttggtttct cagttgcac
183 <210> SEQ ID NO: 5
185 <211> LENGTH: 23

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15

19

RAW SEQUENCE LISTING

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Input Set : A:\5199-69.ST25.txt

Output Set: N:\CRF4\01212005\J809312.raw

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187 <212> TYPE: DNA
189 <213> ORGANISM: artificial sequence
191 <220> FEATURE:
193 <223> OTHER INFORMATION: primer
195 <400> SEQUENCE: 5
197 tgcacctgtg cctcagccat gtc 23
200 <210> SEQ ID NO: 6
202 <211> LENGTH: 57
204 <212> TYPE: DNA
206 <213> ORGANISM: artificial sequence
208 <220> FEATURE:
210 <223> OTHER INFORMATION: primer
212 <400> SEQUENCE: 6
214 ctcgagaacc atggactaca aggacgatga tgacaaagga tcaactcctgg cgaccct 57
217 <210> SEQ ID NO: 7
219 <211> LENGTH: 57
221 <212> TYPE: DNA
223 <213> ORGANISM: artificial sequence
225 <220> FEATURE:
227 <223> OTHER INFORMATION: primer
229 <400> SEQUENCE: 7
231 ctcgagaagc atggactaca aggacgatga tgacaaagga gcacccctac tcaagaa 57
234 <210> SEQ ID NO: 8
236 <211> LENGTH: 30
238 <212> TYPE: DNA
240 <213> ORGANISM: artificial sequence
242 <220> FEATURE:
244 <223> OTHER INFORMATION: primer
246 <400> SEQUENCE: 8
248 gaattctcga gcttggtttc tcagttgcac 30
251 <210> SEQ ID NO: 9
253 <211> LENGTH: 57
255 <212> TYPE: DNA
257 <213> ORGANISM: artificial sequence
259 <220> FEATURE:
261 <223> OTHER INFORMATION: primer
263 <400> SEQUENCE: 9
265 ctcgagaagc atggactaca aggacgatga tgacaaagga gcacccctac tcaagaa 57
268 <210> SEQ ID NO: 10
270 <211> LENGTH: 87
272 <212> TYPE: DNA
274 <213> ORGANISM: artificial sequence
276 <220> FEATURE:
278 <223> OTHER INFORMATION: primer
280 <400> SEQUENCE: 10
282 ttcttctgct tctttttcta gtagttcttc gttttctctt gctagttctt ctgctctttg 60
284 ttcgagggtg ctggcaggac taggata 87
287 <210> SEQ ID NO: 11
289 <211> LENGTH: 83

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Input Set : A:\5199-69.ST25.txt

Output Set: N:\CRF4\01212005\J809312.raw

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291 <212> TYPE: DNA
293 <213> ORGANISM: artificial sequence
295 <220> FEATURE:
297 <223> OTHER INFORMATION: primer
299 <400> SEQUENCE: 11
301 gcaagagaaa acgaagaact actagaaaaa gaagcagaag aactagaaca agaaatgcag      60
303 agctagaggg cgagtgccaa ggg                                             83
306 <210> SEQ ID NO: 12
308 <211> LENGTH: 30
310 <212> TYPE: DNA
312 <213> ORGANISM: artificial sequence
314 <220> FEATURE:
316 <223> OTHER INFORMATION: primer
318 <400> SEQUENCE: 12
320 gaattctcga gcttggtttc tcagttgcac                                     30
323 <210> SEQ ID NO: 13
325 <211> LENGTH: 57
327 <212> TYPE: DNA
329 <213> ORGANISM: artificial sequence
331 <220> FEATURE:
333 <223> OTHER INFORMATION: primer
335 <400> SEQUENCE: 13
337 ctcgagaagc atggactaca aggacgatga tgacaaagga gcatccctac tcaagaa      57
340 <210> SEQ ID NO: 14
342 <211> LENGTH: 30
344 <212> TYPE: DNA
346 <213> ORGANISM: artificial sequence
348 <220> FEATURE:
350 <223> OTHER INFORMATION: primer
352 <400> SEQUENCE: 14
354 gaattctcga gcttggtttc tcagttgcac                                     30
357 <210> SEQ ID NO: 15
359 <211> LENGTH: 100
361 <212> TYPE: DNA
363 <213> ORGANISM: artificial sequence
365 <220> FEATURE:
367 <223> OTHER INFORMATION: primer
369 <400> SEQUENCE: 15
371 gaattcaacc atggactaca aggacgatga tgacaaaatg gcatctatga ctggaggaca      60
373 acaaatggga agagaccag acctcgaaca aagagcagaa                          100
376 <210> SEQ ID NO: 16
378 <211> LENGTH: 30
380 <212> TYPE: DNA
382 <213> ORGANISM: artificial sequence
384 <220> FEATURE:
386 <223> OTHER INFORMATION: primer
388 <400> SEQUENCE: 16
390 gaattctcga gcttggtttc tcagttgcac                                     30
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/809,312

DATE: 01/21/2005

TIME: 12:37:59

Input Set : A:\5199-69.ST25.txt

Output Set: N:\CRF4\01212005\J809312.raw

395 <211> LENGTH: 99
 397 <212> TYPE: PRT
 399 <213> ORGANISM: artificial sequence
 401 <220> FEATURE:
 403 <223> OTHER INFORMATION: frame *give source of genetic material (see item 11 on Ewen summary sheet)*
 405 <400> SEQUENCE: 17
 407 Met Asp Tyr Lys Asp Asp Asp Asp Lys Met Ala Ser Met Thr Gly Gly
 408 1 5 10 15
 411 Gln Gln Met Gly Arg Asp Pro Asp Leu Glu Gln Arg Ala Glu Glu Leu
 412 20 25 30
 415 Arg Glu Asn Glu Glu Leu Leu Glu Lys Glu Ala Glu Glu Leu Glu Gln
 416 35 40 45
 419 Glu Asn Ala Glu Leu Glu Gly Glu Cys Gln Gly Leu Glu Ala Arg Asn
 420 50 55 60
 423 Arg Glu Leu Arg Glu Arg Ala Glu Ser Val Glu Arg Glu Ile Gln Tyr
 424 65 70 75 80
 427 Val Lys Asp Leu Leu Ile Glu Val Tyr Lys Ala Arg Ser Gln Arg Thr
 428 85 90 95
 431 Arg Ser Ala
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 437 <211> LENGTH: 92
 439 <212> TYPE: DNA
 441 <213> ORGANISM: artificial sequence
 443 <220> FEATURE:
 445 <223> OTHER INFORMATION: synthetic oligo nucleotide
 447 <400> SEQUENCE: 18
 449 tcgagtcatg gtaaaaatga cgatcatggta attatcatgg taaaaatgac gtcatggtaa 60
 451 ttatcatggt aaaaatgacg tcatggtaat ta 92
 454 <210> SEQ ID NO: 19
 456 <211> LENGTH: 92
 458 <212> TYPE: DNA
 460 <213> ORGANISM: artificial sequence
 462 <220> FEATURE:
 464 <223> OTHER INFORMATION: synthetic oligo nucleotide
 466 <400> SEQUENCE: 19
 468 agcttaatta ccatgacgtc atttttacca tgataattac catgacgtca tttttaccat 60
 470 gataattacc atgacgtcat ttttaccatg ac 92
 473 <210> SEQ ID NO: 20
 475 <211> LENGTH: 21
 477 <212> TYPE: RNA
 479 <213> ORGANISM: artificial sequence
 481 <220> FEATURE:
 483 <223> OTHER INFORMATION: siRNA *give source of genetic material*
 485 <400> SEQUENCE: 20
 487 aagucagcug cucucaggua c 21

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/809,312

DATE: 01/21/2005

TIME: 12:38:00

Input Set : A:\5199-69.ST25.txt

Output Set: N:\CRF4\01212005\J809312.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date